











# Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
  	B-2, D-1B, D-2A, D-2B	  	 

## Section 1. Chemical Product and Company Identification

<b>Product Name</b>	<b>GAS LINE ANTIFREEZE</b>	<b>Code</b>	W266
<b>Synonym</b>	Methanol, Methyl Alcohol, Methyl hydrate, Universal Gas Line Antifreeze.	<b>Validated on</b>	4/30/2004.
<b>Manufacturer</b>	PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	<b>In case of Emergency</b>	Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
<b>Material Uses</b>	Gas line antifreeze is added to gasoline (tanks) to dissolve ice and to absorb trace amounts of free water. It is especially used by individuals to clear ice blockages in fuel lines and fuel filters in vehicles.		

## Section 2. Composition and Information on Ingredients

			Exposure Limits (ACGIH)		
Name	CAS #	% (V/V)	TLV-TWA(8 h)	STEL	CEILING
1) Methanol	67-56-1	100	200 ppm	250 ppm	Not established
<b>Manufacturer Recommendation</b>	Not applicable				
<b>Other Exposure Limits</b>	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

## Section 3. Hazards Identification.

<b>Potential Health Effects</b>	Flammable liquid. Exercise caution when handling this material. Contact with this product may cause skin and eye irritation. Prolonged or repeated contact may cause skin irritation, defatting, drying and dermatitis. Inhalation and ingestion can cause headache, nausea, vomiting and may cause blindness. Inhalation of this product may cause respiratory tract irritation and Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death. May cause teratogenicity/embryotoxicity. For more information refer to Section 11 of this MSDS.
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## Section 4. First Aid Measures

<b>Eye Contact</b>	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
<b>Skin Contact</b>	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
<b>Inhalation</b>	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
<b>Note to Physician</b>	Not available

## Section 5. Fire-fighting Measures

<b>Flammability</b>	Flammable liquid (NFPA).	<b>Flammable Limits</b>	Lower: 6.0%; Upper: 36%
<b>Flash Points</b>	CLOSED CUP: 11°C (51.8°F). (Tagliabue.)	<b>Auto-Ignition Temperature</b>	385°C (725°F)
<b>Fire Hazards in Presence of Various Substances</b>	Highly flammable in presence of open flames and sparks. Vapour may travel considerable distance to sources of ignition and flash back.	<b>Explosion Hazards in Presence of Various Substances</b>	Explosive in the form of vapour when exposed to heat or flame.
<b>Products of Combustion</b>	Carbon oxides (CO, CO <sub>2</sub> ), acridic smoke, formaldehyde and irritating vapours as products of incomplete combustion.		

<b>Fire Fighting Media and Instructions</b>	NAERG2000, GUIDE 131, Flammable liquids-toxic. CAUTION: This product has a low flash point, use of water spray when fighting fire may be inefficient. SMALL FIRE: Use dry chemicals, CO <sub>2</sub> , water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, fog or alcohol-resistant foam. DO NOT use water jet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions; also, consider initial evacuation for 800 meters (0.5 mile) in all directions. DO NOT extinguish a leaking gas flame unless leak can be stopped. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Avoid flushing spilled material into sewers, streams or other bodies of water. Self-contained breathing apparatus (SCBA) will be required if approaching the fire from downwind, or to enter enclosed areas or buildings.
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### Section 6. Accidental Release Measures

<b>Material Release or Spill</b>	IN THE EVENT OF A LARGE SPILL CONSIDER THE FOLLOWING CONTROL MEASURES: Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. Evacuate non-essential personnel. Extinguish all ignition sources. Stop leak if safe to do so. Ensure clean-up personnel wear appropriate personal protective equipment. Ventilate area. Dike spilled material. Use appropriate inert absorbent material to absorb spilled product. Collect used absorbent for later disposal. Avoid breathing vapours or mists of material. Avoid contact with spilled material. Avoid contaminating sewers, streams, rivers and other water courses with spilled material. If spilled in a confined space, ensure appropriate confined space entry protocols are followed. Notify appropriate authorities immediately.
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### Section 7. Handling and Storage

<b>Handling</b>	Flammable liquid. Handle with care. Avoid contact with any sources of ignition, flames, heat, and sparks. Ensure all equipment is grounded/bonded. Avoid confined spaces and areas with poor ventilation. Avoid skin contact. Avoid eye contact. Avoid inhalation of product vapours or mists. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Wear proper personal protective equipment (See Section 8). Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product. Do not ingest this product.
<b>Storage</b>	Store away from heat and sources of ignition. Store away from incompatible and reactive materials (See section 5 and 10). Avoid direct sunlight. Keep container tightly closed. Store in dry, cool, well-ventilated area. Ensure the storage containers are grounded/bonded.

### Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
<b>Personal Protection -</b>	<b><i>The selection of personal protective equipment varies, depending upon conditions of use.</i></b>
<b>Eyes</b>	As a minimum, safety glasses with side shields should be worn when handling this material.
<b>Body</b>	If this material may come into contact with the body during handling and use, we recommend wearing appropriate protective clothing to prevent contact with the skin. (Contact your PPE provider for more information).
<b>Respiratory</b>	A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator or self contained breathing apparatus if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.
<b>Hands</b>	If this material may come in contact with the hands during handling and use, we recommend wearing gloves of the following material(s): Neoprene, Nitrile and Fluoro-elastomer. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns.
<b>Feet</b>	Wear appropriate footwear to prevent product from coming in contact with feet and skin.

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Liquid	<b>Viscosity</b>	Not available
<b>Colour</b>	Colourless.	<b>Pour Point</b>	Not available
<b>Odour</b>	Slight alcohol like.	<b>Softening Point</b>	Not applicable.
<b>Odour Threshold</b>	2000 ppm	<b>Dropping Point</b>	Not applicable.
<b>Boiling Point</b>	64.5°C (148.1°F)	<b>Penetration</b>	Not applicable.
<b>Density</b>	0.79 (Water = 1)	<b>Oil / Water Dist. Coefficient</b>	Not available
<b>Vapour Density</b>	1.11 (Air = 1)	<b>Ionicity (in water)</b>	Not available
<b>Vapour Pressure</b>	96 mmHg @ 20°C	<b>Dispersion Properties</b>	Not available
<b>Volatility</b>	100 % volatile.	<b>Solubility</b>	Soluble in water and diethyl ether.

**Section 10. Stability and Reactivity**

<b>Corrosivity</b>	Non corrosive.		
<b>Stability</b>	The product is stable under normal handling and storage conditions.	<b>Hazardous Polymerization</b>	Will not occur under normal working conditions.
<b>Incompatible Substances / Conditions to Avoid</b>	Reactive with strong oxidizing agents, hydrogen peroxide, mineral acids, chlorides, carbon tetrachloride, metals, alkali metals, acetyl bromide, dichloromethane, perchloric acid, metal perchlorates, potassium tert-butoxide, alkylaluminum solutions, beryllium hydride, cyanuric chloride, isocyanates, phosphorus (III) oxide (tetraphosphorus hexaoxide), diethyl zinc, plastics, rubbers and coatings.	<b>Decomposition Products</b>	May release CO <sub>x</sub> , smoke and irritating vapours when heated to decomposition.

**Section 11. Toxicological Information**

<b>Routes of Entry</b>	Skin contact, eye contact, inhalation and ingestion.		
<b>Acute Lethality</b>	<u>Methanol (67-56-1):</u> Acute oral toxicity (LD50): 5600 mg/kg (rat). Acute dermal toxicity (LD50): 15,800 mg/kg (rabbit). Acute inhalation toxicity (LC50): 64,000 ppm/4h (rat).		
<b>Chronic or Other Toxic Effects</b>			
Dermal Route:	This product contains a component (at $\geq 1\%$ ) that can cause skin irritation. Therefore, this product is considered to be a skin irritant. Prolonged or repeated contact may defat and dry skin, and cause dermatitis.		
Inhalation Route:	Inhalation of this product may cause respiratory tract irritation. Inhalation of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.		
Oral Route:	Ingestion of this product may lead to aspiration of the liquid, especially if vomiting occurs. This may result in chemical pneumonitis (inflammation of the lungs) and/or pulmonary edema (an accumulation of fluid in the lungs). Ingestion of this product may cause visual disturbance ranging from double vision to blindness. Ingestion of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.		
Eye Irritation/Inflammation:	This product contains a component (at $\geq 1\%$ ) that can cause eye irritation. Therefore, this product is considered to be an eye irritant.		
Immunotoxicity:	Not available		
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.		
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.		
Mutagenic:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause mutagenicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a mutagen.		
Reproductive Toxicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.		
Teratogenicity/Embryotoxicity:	This product contains a component(s) at $\geq 0.1\%$ that has been shown to cause teratogenicity and/or embryotoxicity in laboratory tests. Therefore, this product is considered to be a teratogen/embryotoxin.		
Carcinogenicity (ACGIH):	This product is not known to contain any chemicals at reportable quantities that are listed as Group A1, A2, or A3 carcinogens by ACGIH.		
Carcinogenicity (IARC):	This product is not known to contain any chemicals at reportable quantities that are listed as Group 1, 2A, or 2B carcinogens by IARC.		
Carcinogenicity (NTP):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.		
Carcinogenicity (IRIS):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by IRIS.		
Carcinogenicity (OSHA):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.		
<b>Other Considerations</b>	No additional remark.		

**Section 12. Ecological Information**

<b>Environmental Fate</b>	Not available	<b>Persistence/Bioaccumulation Potential</b>	Not available
<b>BOD5 and COD</b>	Not available	<b>Products of Biodegradation</b>	Not available
<b>Additional Remarks</b> No additional remark.			






**Section 13. Disposal Considerations**

<b>Waste Disposal</b>	Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.
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**Section 14. Transport Information**

<b>TDG Classification</b>	METHANOL, 3, 6.1, UN1230, PGII (CL-TDG)	<b>Special Provisions for Transport</b>	See Transportation of Dangerous Goods Regulations.
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**Section 15. Regulatory Information**

<b>Other Regulations</b>		This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).																					
		All components of this formulation are listed on the US EPA-TSCA Inventory.																					
		All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).																					
		This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.																					
		Please contact Product Safety for more information.																					
<b>DSD/DPD (Europe)</b>		Not evaluated.		<b>HCS (U.S.A.)</b>  CLASS: Highly toxic. CLASS: Flammable liquid having a flash point lower than 37.8°C (100°F). CLASS: Irritating substance. CLASS: Target organ effects.																			
<b>ADR (Europe) (Pictograms)</b>		NOT EVALUATED FOR EUROPEAN TRANSPORT  NON ÉVALUÉ POUR LE TRANSPORT EUROPÉEN.		<b>DOT (U.S.A) (Pictograms)</b>   																			
<b>HMIS (U.S.A.)</b>		<table><tr><td>Health Hazard</td><td>(2*)</td></tr><tr><td>Fire Hazard</td><td>(3)</td></tr><tr><td>Reactivity</td><td>(0)</td></tr><tr><td>Personal Protection</td><td>(G)</td></tr></table>		Health Hazard	(2*)	Fire Hazard	(3)	Reactivity	(0)	Personal Protection	(G)	<b>NFPA (U.S.A.)</b>  <table><tr><td rowspan="2">Health</td><td rowspan="2"></td><td>Fire Hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>0</td></tr><tr><td colspan="2"></td><td>Specific hazard</td><td></td></tr></table>		Health		Fire Hazard	3	Reactivity	0			Specific hazard	
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				Rating	0 Insignificant 1 Slight 2 Moderate 3 High 4 Extreme																		

**Section 16. Other Information**

<b>References</b>	Available upon request. * Marque de commerce de Petro-Canada - Trademark
<b>Glossary</b> ACGIH - American Conference of Governmental Industrial Hygienists ADR - Agreement on Dangerous goods by Road (Europe) ASTM - American Society for Testing and Materials BOD5 - Biological Oxygen Demand in 5 days CAN/CGA B149.2 Propane Installation Code CAS - Chemical Abstract Services CEPA - Canadian Environmental Protection Act CERCLA - Comprehensive Environmental Response, Compensation and Liability Act CFR - Code of Federal Regulations CHIP - Chemicals Hazard Information and Packaging Approved Supply List COD5 - Chemical Oxygen Demand in 5 days CPR - Controlled Products Regulations DOT - Department of Transport DSCL - Dangerous Substances Classification and Labeling (Europe) DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe) DSL - Domestic Substance List EEC/EU - European Economic Community/European Union EINECS - European Inventory of Existing Commercial Chemical Substances EPCRA - Emergency Planning and Community Right to Know Act FDA - Food and Drug Administration FIFRA - Federal Insecticide, Fungicide and Rodenticide Act IRIS - Integrated Risk Information System LD50/LC50 - Lethal Dose/Concentration kill 50% LDLo/LCLo - Lowest Published Lethal Dose/Concentration NAERG'96 - North American Emergency Response Guide Book (1996) NFPA - National Fire Prevention Association NIOSH - National Institute for Occupational Safety & Health NPRI - National Pollutant Release Inventory NSNR - New Substances Notification Regulations (Canada) NTP - National Toxicology Program OSHA - Occupational Safety & Health Administration PEL - Permissible Exposure Limit RCRA - Resource Conservation and Recovery Act SARA - Superfund Amendments and Reorganization Act SD - Single Dose STEL - Short Term Exposure Limit (15 minutes) TDG - Transportation Dangerous Goods (Canada) TDLo/TCLo - Lowest Published Toxic Dose/Concentration TLm - Median Tolerance Limit TLV-TWA - Threshold Limit Value-Time Weighted Average TSCA - Toxic Substances Control Act USEPA - United States Environmental Protection Agency USP - United States Pharmacopoeia WHMIS - Workplace Hazardous Material Information System	

HCS - Hazardous Communication System  
HMIS - Hazardous Material Information System  
IARC - International Agency for Research on Cancer

**For Copy of MSDS**

Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)

Western Canada, Ontario & Central Canada, telephone: 1-800-668-0220; fax:  
1-800-837-1228

Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - JDW on 4/30/2004.

Data entry by Product Safety - RS.

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